

## **REMARKS/ARGUMENTS**

Claims 1-23 remain in this application.

The applicants respectfully traverse the rejection of claims 1-7, 11-16, and 20-23 under 35 U.S.C. §103(a) as being unpatentable over “Reliability of the adhesion of the Glass-Primary Coating Interface on Optical Fibers” by Murata et al (hereinafter referred to as “Murata”).

There is no mention or suggestion in Murata of utilizing a hydrophilic primary coating nor is there any mention or suggestion of such a coating which exhibits substantially no water bubble formation when soaked in water at 23°C for thirty (30) days. The Patent Office indicates that “a hydrophilic primary coating is disclosed in Murata.” Applicants respectfully disagree. There is no indication of the level of hydrophilicity in the coatings disclosed in Murata. As evidenced by the article “Optical Fiber Coating Delamination Using Model Coating Materials”, by Charles Aloisio et al, Proceedings of the 51<sup>st</sup> IWCS, pages 738-747, (a copy of which is submitted herewith along with an Invention Disclosure Statement), various other people of skill in the art have indicated that percent water absorptions as low as .98 were considered to be “high polarity” (and as used in this reference, polarity appears to be synonymous hydrophilicity, see for example page 741, column 1, lines 24-26).

According to the Patent Office:

“Murata does not specifically disclose that the primary coating exhibits substantially no water bubble formation when the coated optical fiber is soaked in water at 23°C for thirty (30) days and when the coated optical fiber is soaked in water at 65°C for sixty (60) days. Murata also does not specifically disclose that the primary coating has an average water absorption of at least 4% and that the coated optical fiber has a dry pull out value of at least about 1 pound force. However, it is inherent that the primary coating exhibits substantially no water bubble formation when the coated optical fiber is soaked in room temperature for thirty (30) days and when the coated optical fiber is soaked in water at 60°C for sixty (60) days

since the primary coating exhibits substantially no delamination and no decrease in pull out force.”

Applicants respectfully disagree. First, it is not true that the primary coating disclosed in Murata did not exhibit a decrease in pull out force. In fact, in every example disclosed in Murata, as water content increased, pull out force decreased. It is likely for this reason that the Abstract of Murata indicates that “Fibers with low water content coatings show good stability for interface adhesion.” Consequently, if anything Murata suggests against using high water levels in the optical fiber primary coating. Furthermore, contrary to comments by the Patent Office, it is not necessarily true that, just because a coating exhibits no delamination and no decrease in pull out force, it follows that there is no water bubble formation. For example, improved delamination and pull out force results could be easily achieved by employing an increased amount of adhesion promoter.

Because each of the other pending claims depend, either directly or indirectly, from one of claims 1, 15, or 22, it is submitted that these dependant claims are also patentable over Murata.

In addition, with respect to claim 3, the Patent Office indicated that “It would have been obvious to one of skill in the art that the primary coating exhibits an average of less than about 20 water bubbles when the coating is soaked in water at 65°C for sixty days.” Again, applicants submit that there is no mention or suggestion in Murata of water bubbles, in fact there is no discussion of water bubbles at all in Murata.

With respect to claim 4, there is certainly no indication of utilizing a primary coating having an average water absorption of at least about 4%. Furthermore, the materials employed in Murata cannot be tested, as there is no mention or suggestion in Murata of what the coating composition was. Furthermore, as evidenced by the optical fiber coating delamination article mentioned above, others having skill in the art have indicated that levels of less than 1% are highly hydrophilic.

Based upon the above amendments, remarks, and papers of records, applicant believes the pending claims of the above-captioned application are in allowable form and patentable over the prior art of record. Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

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Applicant believes that no extension of time is necessary to make this Reply timely. Should applicant be in error, applicant respectfully requests that the Office grant such time extension pursuant to 37 C.F.R. § 1.136(a) as necessary to make this Reply timely, and hereby authorizes the Office to charge any necessary fee or surcharge with respect to said time extension to the deposit account of the undersigned firm of attorneys, Deposit Account 03-3325.

Please direct any questions or comments to Robert L. Carlson at 607-974-3502.

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Respectfully submitted,



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